

## **REMARKS**

### **A. Background**

Claims 1, 4, 5, and 7-16 were pending in the application at the time of the Office Action. All of the pending claims are rejected as being obvious over cited art. By this response applicant has cancelled claims 7-9; amended claims 1, 12, and 13; and added new claims 17-21. As such, claims 1, 4, 5, and 10-21 are presented for the Examiner's consideration in light of the following remarks, with claims 1, 12, and 17 being independent.

### **B. Proposed Amendments**

Applicant has herein amended claims 1, 12, and 13, and added new claims 17-21 to further clarify, more clearly define, and/or broaden the claimed inventions to expedite receiving a notice of allowance. For example, independent claims 1 and 12 have been amended to clarify that the silica gel is positioned within the airflow passageway at the end closest to the chamber, the porous membrane is positioned at the end furthest from the chamber, and the activated carbon is positioned between the silica gel and the porous membrane. The amendments to the claims are supported in the application at least by Figure 2 and the corresponding discussion in the specification. In view of the foregoing, applicant submits that the amendments to the claims do not introduce new matter and entry thereof is respectfully requested.

### **C. Examiner Interview**

Applicant would like to thank the Examiner for the courtesy of the telephone interview conducted on February 16, 2011 between the undersigned and the Examiner of record in the present application. The present invention was discussed and contrasted with the cited art. Amendments to the pending independent claims were also presented and discussed that clarify the relative positions of the filter stages within the airflow passageway. The Examiner acknowledged that with the clarifying amendments, the claims would likely overcome the cited art. Applicant has further amended the independent claims subsequent to the interview to further clarify the order of the filter stages in the passageway with respect to the chamber. The amendments and remarks presented herein are consistent with the proposals and remarks generally presented during the interview and which generally appeared, during the interview, to distinguish the claims from the cited references and to overcome all of the rejections of record.

D. Rejections based on 35 U.S.C. § 103

1. Rejections based on Ueki/Urano combination

Paragraph 1 of the Office Action rejects claims 1, 4, 5, 7-12, and 16 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,824,595 to Ueki et al. (“*Ueki*”) in view of U.S. Patent No. 4,254,339 to Urano (“*Urano*”). Inasmuch as claims 7-9 have been canceled herein, the rejection with respect to those claims has been rendered moot. With respect to the rest of the rejected claims, Applicant respectfully traverses this rejection. Of the rejected claims, claims 1 and 12 are independent.

As shown in Figures 3 and 4, *Ueki* discloses a gas adsorption filter 11 for mounting on an air tight container 17. Gas adsorption filter 11 comprises “an adsorbent 13 ... provided on one side of a base 12, and the adsorbent 13 is covered by a breathable member 14 to form an adsorbent unit.” Col. 5, lines 17-19. Applicant notes that the Office Action has equated the adsorbent 13 and the breathable member 14 of *Ueki* respectively to the claimed “activated carbon” and “porous membrane. Adsorbent 13 is secured to an inside face of base 12 so that when base 12 is mounted on container 17, adsorbent 13 is disposed toward the compartment of container 17. Breathable member 14 covers adsorbent 13 so as to separate breathable member from the compartment of container 17. This is done so that breathable member 14 can serve its intended function of “preventing the shedding of the adsorbent [into the compartment].” Col. 7, lines 21 and 22. As a result of breathable member 14 covering adsorbent 13, breathable member 14 is positioned between adsorbent 13 and the compartment of container 17.

The Office Action acknowledges that *Ueki* does not disclose an “activated carbon” filter stage and a separate “silica gel” filter stage, as recited in claims 1 and 12. To address this deficiency, the Office Action cites to *Urano* for teaching a silica gel filter 46 and a separate carbon filter 45 and asserts that it would have been obvious “to substitute the Ueki absorbent filter with the Urano separate filters.” Office Action, page 4. Applicant submits that even if adsorbent 13 of *Ueki* was replaced by the activated carbon and silica gel stages of *Urano* as suggested, breathable member 14 would still be positioned between the two stages and the compartment of container 17.

As such, Applicant respectfully submits that even if, *arguendo*, the references were combined in the allegedly obvious manner set forth in the Office Action, the combination would still not produce the claimed invention. For example, as discussed above, breathable member 14 covers adsorbent 13 so that breathable member 14 is positioned between adsorbent 13 and the compartment of container 17. Because this covering by breathable member 14 is used to prevent the “shedding of the absorbent,” this “covering” would still be

positioned nearest the compartment even if adsorbent 13 was comprised of two separate filters. Accordingly, the allegedly obvious combination would not produce a filter having “a filter housing extending from a proximal end to a spaced apart distal end, the proximal end being positioned such that air flowing out from the chamber through the airflow passageway flows through the proximal end before arriving at the distal end, ... wherein the porous membrane is positioned at the distal end, the silica gel is positioned at the proximal end, and the activated carbon is positioned between the porous membrane and the silica gel,” as recited in amended claim 1, or wherein the porous membrane, the activated carbon, and the silica gel are positioned “in order from the distal end to the proximal end,” as recited in amended claim 12. Accordingly, Applicant respectfully requests that the obviousness rejection with respect to claims 1 and 12 be withdrawn.

Claims 4, 5, 10, 11, and 16 depend from claims 1 and 12 and thus incorporate the limitations thereof. As such, applicant submits that claims 4, 5, 10, 11, and 16 are distinguished over the cited art for at least the same reasons as discussed above with regard to claims 1 and 12. Accordingly, Applicant respectfully requests that the rejection with respect to claims 4, 5, 10, 11, and 16 also be withdrawn.

Applicant further submits that it would not have been obvious to modify the *Ueki/Urano* combination to move breathable member 14 so it is not between the adsorbents and the chamber. As noted above, one of the primary functions of breathable member 14 is to prevent the “shedding of the adsorbent.” If breathable member 14 were moved so that it was not closest to the chamber (i.e., between the adsorbents and the chamber), any shedding by the adsorbent would escape directly into the chamber. As such, breathable member 14 would not be able to perform its intended function, which precludes a finding of obviousness.

Applicant further submits that the positioning of the different filter stages is not arbitrary but produces unique benefits. For example, as discussed in the specification, the inventive filter is designed to produce a two way flow of air through the filter stages that minimizes the flow of humidity and particulate into the filter housing and optimizes driving humidity out of the chamber and the silica gel. That is, placing the porous membrane at the air inlet (i.e., furthest away from the chamber) minimizes the amount of moisture and particulate that can initially enter the airflow passageway and thus limits that amount of moisture that must be adsorbed by the silica gel. In contrast, placing the porous membrane at the outlet (i.e., closest to the chamber), as taught by the prior art, restricts the flow of moisture out of the chamber which is contrary to the intended object of the present invention. Furthermore, by placing the silica gel closest to the chamber, the silica gel is exposed to the greatest thermal heat produced by the electrical apparatus within the chamber.

Maximizing the applied heat to the silica gel optimizes the amount of humidity that can be driven out of the chamber past the silica gel and maximizes the amount of humidity that can be driven out of the silica gel, thereby decreasing humidity within the chamber.

2. Rejections based on Hashemi/Urano/Oshitatri combination

Paragraph 2 of the Office Action rejects claims 13-15 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,406,467 to Hashemi (“*Hashemi*”) in view of *Urano* and further in view of U.S. Patent No. 4,877,433 to Oshitatri (“*Oshitatri*”). Claims 13-15 depend from claim 12 and thus incorporate the limitations thereof. *Hashemi* relates to a simple method to produce a convoluted or torturous air channel from a molded part inserted into a rubber tube. The aim is to provide an extended diffusion channel similar to the capillary air channel disclosed in *Ueki*. However, the filter in this disclosure is a simple foam plug. No absorptive action is anticipated nor suggested to occur in the filter. There is also no disclosure of using absorptive media in the filter. In view of the foregoing, applicant submits that *Hashemi* does not cure the above discussed deficiencies of the prior art relative to claim 12. As such, applicant submits that claims 13-15 are also not obvious over the cited art for at least the same reasons as discussed above with regard to claim 1. Accordingly, Applicant respectfully requests that the obviousness rejection with respect to claims 13-15 be withdrawn.

No other objections or rejections are set forth in the Office Action.

E. New Claims

Applicant submits that new claims 17-21 are distinguished over the cited art. For example, new independent claim 17 recites “an airflow passageway extending outward from the chamber from a proximal end to a spaced apart distal end, the proximal end being positioned such that air flowing out from the chamber through the airflow passageway flows through the proximal end before arriving at the distal end” and that “the silica gel, the activated carbon, and the porous membrane are positioned “in order from the proximal end to the distal end.” As such, Applicant respectfully submits that claim 17 is distinguished over the cited art for substantially the same reasons discussed above with respect to claims 1 and 12. Furthermore, new claim 17 also recites that “the silica gel is openly exposed to the chamber,” which is also clearly not taught by the cited art.

Claims 18-21 depend from claim 17 and thus incorporate the limitations thereof. As such, Applicant submits that claims 18-21 are distinguished over the cited art for at least the same reasons as discussed above with regard to claim 17.

F. Conclusion

Applicant notes that this response does not discuss every reason why the claims of the present application are distinguished over the cited art. Most notably, applicant submits that many if not all of the dependent claims are independently distinguishable over the cited art. Applicant has merely submitted those arguments which it considers sufficient to clearly distinguish the claims over the cited art.

In view of the foregoing, applicant respectfully requests the Examiner's reconsideration and allowance of claims 1, 4, 5, and 10-21 as amended and presented herein.

In the event there remains any impediment to allowance of the claims which could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate such an interview with the undersigned.

Finally, the Commissioner is hereby authorized to charge payment of any of the following fees that may be applicable to this communication, or credit any overpayment, to Deposit Account No. 23-3178: (1) any filing fees required under 37 CFR § 1.16; (2) any patent application and reexamination processing fees under 37 CFR § 1.17; and/or (3) any post issuance fees under 37 CFR § 1.20. In addition, if any additional extension of time is required, which has not otherwise been requested, please consider this a petition therefore and charge any additional fees that may be required to Deposit Account No. 23-3178.

Dated this 22nd day of February 2011.

Respectfully submitted,

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